

REMARKS

In a first Office Action dated February 6, 2004 (paper no. 5), the Examiner objected to claim 9 because of an informality. The Examiner rejected claims 2-5 and 8-10 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner rejected claims 1-4, 6, 8, and 10-11 under 35 U.S.C. §102(b) as being anticipated by Dent. (U.S. patent no. 5,539,730). The Examiner rejected claim 5 under 35 U.S.C. §103(a) as being unpatentable over Dent in view of Thielecke et al. (U.S. patent no. 5,719,899). The Examiner rejected claim 9 under 35 U.S.C. §103(a) as being unpatentable over Dent in view of Hunsinger et al. (U.S. patent no. 5,949,813). The Examiner objected to claim 7 as being dependent upon a rejected base claim but as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and further rewritten to overcome the 35 U.S.C. §112, second paragraph, rejections. The rejections and objections are traversed and reconsideration is hereby respectfully requested.

The Examiner rejected claims 2-5 and 8-10 under 35 U.S.C. §112, second paragraph. In particular, the Examiner noted inconsistencies between claims 2 and 3 and claims 4 and 5, and further between claims 4 and 5 and claim 8. In order to resolve these inconsistencies, claims 4 and 5 have been amended to refer to a CDMA scheme in the first direction and a TDMA or OFDMA scheme in the second direction. The applicants submit that claims 4 and 5 are now consistent with claims 2, 3 and 8. Accordingly, the applicants respectfully request that the Examiner withdraw the 35 U.S.C. §112, second paragraph, rejection of claims 2-5 and 8-10.

The Examiner rejected claims 1-4, 6, 8, and 10-11 under 35 U.S.C. §102(b) as being anticipated by Dent. Claims 1 and 11, as amended, provide that first and second signals are transmitted simultaneously in the first and second direction and that the first signal and the second signal have overlapping frequency spectra. Hence, in accordance with the claims, a first signal may be transmitted in one direction, for example, downlink, at the same time as a second signal having an overlapping frequency spectrum is transmitted in the other direction, for example, uplink. Thus, for one or more frequency

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ranges two different signals co-exist without being time separated, thereby causing interference to each other. However, by selecting different transmission schemes the impact of the interference may be reduced thereby allowing the two signals to be received.

This is in contrast to existing communication system where interference is limited and preferably removed by allocating different time intervals and/or different frequency intervals for communication in the different directions. Dent discloses a satellite system wherein a satellite communicates with a hub and remote mobile stations. However, it is respectfully submitted that Dent does not disclose signals in opposite directions having overlapping frequency spectra being transmitted simultaneously. Rather, Dent merely considers the conventional approach of separating signals in frequency and/or time. In particular, Dent discloses that uplink and downlink to the mobile stations occur in completely different frequency bands, that is, in the C or Ka band for the single hub, the L-band for downlink to mobile stations, and the S-band for uplink from mobile stations.

Therefore, the applicants respectfully submit that Dent is concerned with a completely different transmission approach and in particular does not disclose the features of claims 1 and 11 of a first signal and a second signal being simultaneously transmitted in different directions with different transmission schemes between a base station and a first and second remote unit respectfully, where the first and second signal have overlapping frequency spectra. Accordingly, the applicants respectfully request that claims 1 and 11 may now be passed to allowance.

Since claims 2-10 depend upon allowable claim 1, the applicants respectfully request that claims 2-10 may now be passed to allowance.

The applicants have also amended claim 9 to correct the formality.

As the applicants have overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the applicants contend that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicants

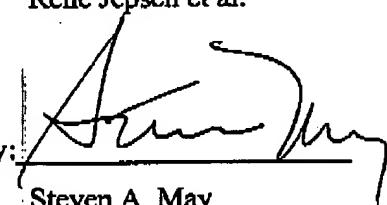
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respectfully solicit allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Respectfully submitted,

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